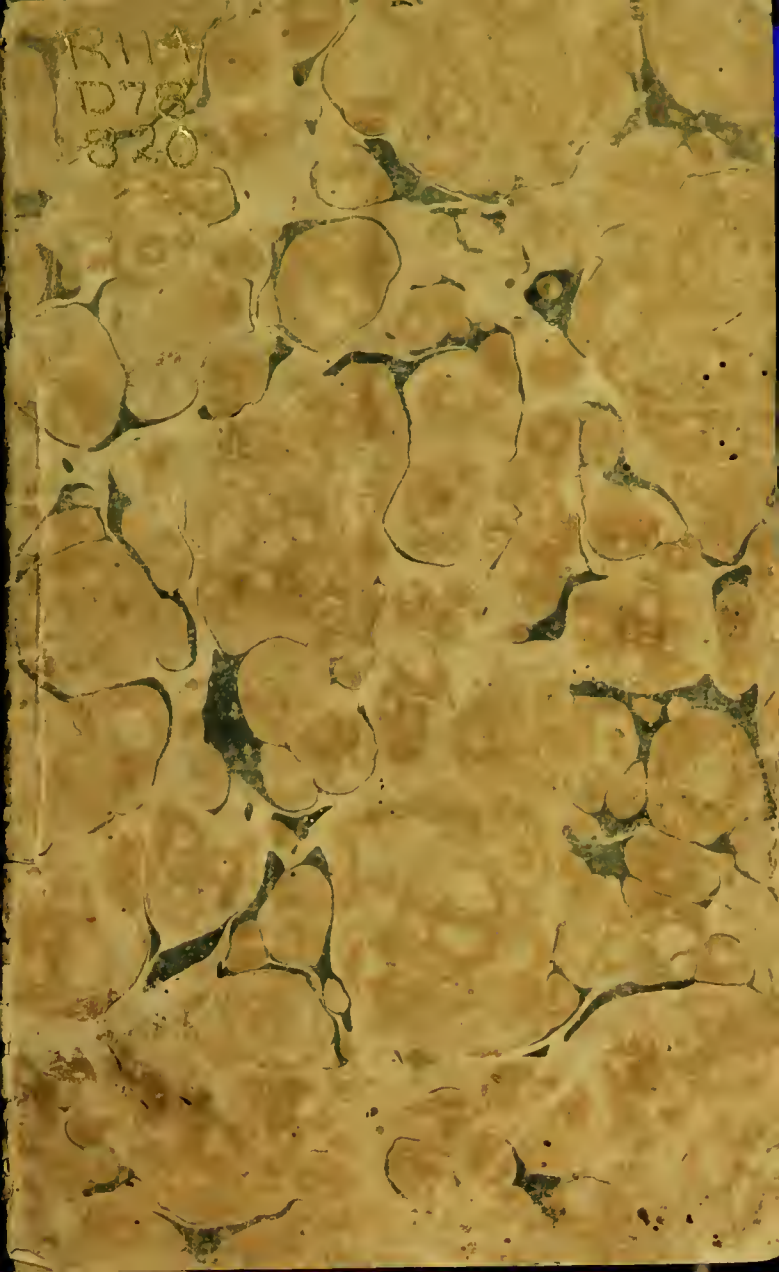


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AN
ANNIVERSARY DISCOURSE,
ON THE
STATE AND PROSPECTS
OF THE
**WESTERN MUSEUM
SOCIETY:**

DELIVERED BY APPOINTMENT, IN THE
CHAPEL OF THE CINCINNATI COLLEGE,
June 10th, 1820,
ON THE OPENING OF THE
MUSEUM.

BY DANIEL DRAKE, M. D.

Secretary of the Society;

Member of the American Philosophical and Geological Societies;
Counsellor of the American Antiquarian Society, and
Member of the Philadelphia Academy of
Natural Sciences.

CINCINNATI, OHIO:

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1820.



TO
MR. WILLIAM STEELE,
OF CINCINNATI.

DEAR SIR,

As you had the honor of first proposing the establishment of a permanent Museum in this city, and have contributed more liberally than any other person to its organization and support, I cannot forego the pleasure, as an act of common justice, of inscribing to you the following humble but well-meant effort to promote its interests and utility.

I am, dear sir, with respect,

Your very obedient servant,

THE AUTHOR.

Cincinnati, }
June 12th, 1820. }



ANNIVERSARY DISCOURSE.

WE have this evening assembled to commemorate the establishment of the WESTERN MUSEUM SOCIETY.

Among the numerous reasons for this measure, there are two, which exert an almost imperative influence. First: At the expiration of the two years which have been spent in the collection and arrangement of curiosities, when they are prepared for public inspection, and the doors of the Museum are about to be opened, it is important that we should review the design and labors of the Society, and inquire what benefits they are likely to produce. Secondly: As the arts and sciences have not hitherto been cultivated among us to any great extent, the influence they are capable of exerting on our happiness and dignity is not generally perceived, and they have consequently but few friends and admirers. It is therefore proper, that we should institute and continue to observe an annual festival in celebration of the origin of a Society established expressly for their promotion; that we may elevate their character with the mass of our people, and multiply the number of their devotees and patrons, by the infallible method of augmenting their consequence.

The plan of our establishment embraces nearly the whole of those parts of the great circle of knowledge,

which require material objects, either natural or artificial, for their illustration. It has, of course, a variety of subdivisions, and in its execution will call for very different architects; as its consummation will afford instruction and delight to persons of very opposite tastes. Already, indeed, in possession of many specimens in ZOOLOGY, MINERALOGY, ANTIQUITIES, and the FINE and USEFUL ARTS, we venture to indulge the hope, that even at this time, we can offer *something* to interest the naturalist, the antiquary and the mechanician.

To assemble without arrangement, such a great variety of substances, would neither gratify curiosity, nor inform the understanding. It has been well observed, by one of the ablest philosophers of the last century, that *method is the soul of science*. The Managers and Artists of the Museum have not been unmindful of this celebrated aphorism; and, as far as their knowledge would enable them, have arranged the articles, which have been collected, according to the most approved systems. They have thus, in obedience to a valuable precept, adopted by an enlightened reformer* of the present century, provided *a place for every thing, and disposed of every thing in its place*. Should they adhere to these principles, the most important results must be obtained. A regular groundwork being laid, the groupes of objects, thus associated by natural affinities, will rise from it in order and beauty, like those which start from the prepared canvass into imitative life, under the creative pencil of the painter.

* Joseph Lancaster.

To establish in this new region a scientific cabinet, on a plan so varied and extensive, may be considered by some as premature and impracticable. It is not difficult to show, however, that this objection is rather specious than solid. For an obvious reason, it is a new country in which such a multifarious assemblage is most proper. Ancient communities, only, exhibit a perfect separation of kindred trades and occupations, and a divorcement of the extraneous branches of science from the learned professions, to which in young societies we find them closely united. Old communities therefore are the only ones which can *successfully* establish cabinets and museums for particular classes of objects, and destined for the benefit and amusement of particular orders of men. Let no one, then, charge our Society with temerity for aiming at a general collection; nor regard as an evidence of vain glory and undisciplined ambition, what, in reality, is both the effect, and indication, of our recent settlement in a new region.

Having thus briefly sketched the outlines of our plan, and offered an apology for their extent, let us proceed to inquire in what manner they are to be filled up.

It would be difficult to exhibit, on a graduated scale, the comparative importance of the different arts and sciences. The circumstances under which we may happen to be placed, exert a strong, modifying influence; and it is chiefly to them that the necessity of sometimes varying to a great extent the nature of our intellectual pursuits, must be referred. The information which to one man is of no utility, may be extremely important to another; and branches of science,

which one people might neglect without detriment, may, to another, be indispensable. I will not venture to say, that every species of knowledge included in our scheme is deserving of encouragement here; but I hazard nothing in asserting, that many of our dearest interests are involved in the principal branches, which it is the object of our Society to promote and to illustrate. I will briefly draw your attention to these, and endeavor to show in what manner and to what extent our labors may be rendered interesting to the philosopher, the patriot and the amateur.

The illustration of our Natural History is, of course, the first, as it is confessedly the most curious object. I will neither insult your understandings nor consume your time with arguments to establish the importance of this branch of science. I expect from you a sort of intuitive acquiescence in the proposition, that the inhabitants of every country should be acquainted with its natural history. I anticipate from you an eager assent to the supplementary proposition, that a people in our situation have special need of an acquaintance with their productions and resources. With this conviction, which is equally the result of experience and reflection, you will be prepared to listen patiently to the feeblest exposition of the views and prospects of our Society, so far as they involve the physical condition of the region in which our destinies are fixed. I shall begin, by calling your attention to our ZOOLOGY.

The Quadrupeds of the United States have not yet been fully described, and it is even uncertain whether they have been all enumerated. What proportion of

them are indigenous to the Ohio countries remains to be ascertained. The number which has been assigned to these regions by the zoologists will, in all probability, hereafter be augmented. The determination of the species of our foxes, wild cats, wolves, squirrels, otters and deer, will probably show, that many, which are now regarded as mere varieties, are, in reality, distinct species. To these points the attention of our Society is already directed; and I cannot but hope, that they and the other *desiderata* connected with this branch of our zoology will, ere long, be supplied.

It would be an act of injustice to speak of our ORNITHOLOGY, without connecting with it the name of Alexander Wilson. To this selftaught, indefatigable and ingenious man we are indebted for most of what we know concerning the natural history of our Birds. His labors may have nearly completed the Ornithology of the middle Atlantic states, but must necessarily have left that of the Western imperfect. When we advert to the fact, that most birds are migratory, and that in their migrations they are not generally disposed to cross high mountains, but to follow the courses of rivers; when we contemplate the great basin of the Mississippi, quite open to the north and south, but bounded on the east and west by ranges of lofty mountains, while the river itself stretches through twenty degrees of latitude, connecting lake Superior and the Gulf of Mexico, it is reasonable to conjecture, that many birds annually migrate over this country which do not visit the Atlantic states, and might, therefore, have escaped the notice of their greatest ornithologist in the single excursion which

he made to the Ohio. As a proof of this supposition, it may be stated, that Mr. Audubon, one of the excellent artists attached to the Museum, who has drawn, from nature, in colored crayons, several hundred species of American birds, has, in his portfolio, a large number that are not figured in Mr. Wilson's work, and many which do not seem to have been recognized by any naturalist.

It is not, however, among these important classes, that the greatest number of novelties in the zoology of this region can be found. The obscure and imperfect animals that swim in our lakes and rivers, infest our morasses, dimple our pools, and swarm among the flowers of our fields; those which, like our white perch, are remarkable only for their nutritious qualities; or, like the great rattle snake of our Museum, for living whole months in captivity without the aid of any nutritious substance; or, like the minute insects, which sometimes overcloud our atmosphere, and exhibit an unwelcome example of the distribution of a small portion of life among a multitude of beings, apparently to augment the sum of its power; those animals, in short, which delight the historian, rather than the poet of nature, have been least studied by us, and at the same time are not only most numerous, but contain the greatest proportion of what are peculiar to this country. The more noble and perfect animals traverse extensive continents, and become citizens of the world; while the imperfect are frequently limited to a narrow range, and seldom extend their migrations beyond a single district. An abundant feast is, therefore, in reserve for those who

delight to study animated nature in every form, and can equally admire her attributes, whether humble or exalted.

The problems offered by our FOSSIL ZOOLOGY are still more curious and difficult than those presented by the study of our existing animals.

It was formerly supposed, that no animal species is ever suffered to perish. The fossil bones of the Ohio seem to have contributed largely to the correction of this error, and to the formation of juster views of the economy of nature. The first animal remains taken from the valley of Big-Bone were sent to Europe, about the middle of the last century. At that time the study of extraneous fossils had not been prosecuted to any considerable extent, and these bones were regarded as very uncommon and wonderful relics. Since that period, the indefatigable researches of Cuvier and other naturalists have led to the conclusion, as a general fact, that the alluvial tracts of every part of the earth contain the fossil bones of quadrupeds, which belonged to species that no longer exist. How many of these were inhabitants of this country remains to be ascertained. Judging from the prodigious extent of our alluvial grounds, and from the bones that have been already disinterred, we may reasonably expect that future examinations will develope to us many extensive and curious deposits.

Of those which have been discovered, the bones of the great *Mastodon* are the most remarkable. This immense animal belonged to an extinct genus, nearly allied to the elephant. According to Cuvier, five other species, most of them of less magnitude, have been

found in America and in Europe. Whether the remains of any of these are mingled with those of the great *mastodon* at Big-Bone, or any other part of the Western country, is a question for future decision.

To the *mastodon* we have applied the name of Mammoth; but this was originally given by the people of the old world to an extinct species of *elephant*, whose bones are accumulated in great quantities along the rivers of the north of Asia. The remains of the same animal have been found in the valleys of the Western country; but are not so abundant as those of the great *mastodon*. The grinders of these two animals are easily distinguished; but all their other bones have been hitherto confounded by us, and present a difficult subject for future investigation.

The morasses at Big-Bone afford the bones of an extinct species of *Bos*, different from the domestic ox, the buffalo and the bison; and a species of *Cervus*, of the size of the elk, but distinct from the round-horned elk of the Mississippi, the moose of Canada, and the fossil elk of Ireland, as appears from the researches of our late distinguished countryman Dr. Wistar.

Along with the bones of these extinct species, those of many of the existing races of animals are known to be deposited, and the separation of them will constitute another problem for our determination.

Nothing could be more unfavorable to the solution of this and the other questions which have been proposed concerning these fossils, than the practice of sending them abroad as detached curiosities. It is by comparison alone, that correct results in this, as in

the other departments of natural history can be obtained; and to compare these relics it is obviously necessary that they should be collected at one place. I know of no spot in the Western country, which has geographical relations more eminently fitting it for their reception, nor better situated to display them to a great number of persons, than Cincinnati. I cannot therefore but hope, that our collection, already embracing a variety of interesting specimens from different places, will be much increased; and that we shall, ultimately, be able to exhibit large portions, if not entire skeletons, of the greater number of those which have perished in this country.

A more curious subject of inquiry than the cause which annihilated these animals could scarcely be suggested. That the catastrophe by which they were destroyed was an inundation, the naturalists think extremely probable; not only from the situation in which the bones are deposited, but also from the extreme difficulty of conceiving what other cause could have produced that stupendous effect. Of the time, however, when it occurred; whether it was partial or universal, and to what immediate agency it should be ascribed, we are uncertain, and must collect a much greater number of facts, before we can speak with confidence.

We pass, by a natural transition, from this subject to our MINERALOGY and GEOLOGY. I have lately, on another occasion, had the honor of pointing out to you, some of the more obvious relations between the cultivation of these sciences and the promotion of our

independence and happiness.* Very little reflection must convince us, that this connexion is neither slight nor transitory; and that while we neglect the resources which can only be developed by the study of our mineralogy, and the arts which grow out of it, we must of necessity remain tributary to the more discerning inhabitants of other countries. To a consideration so powerful, it will, I trust, be unnecessary to add any others, to incite you to the study of this branch of our natural history.

An inspection of our cabinet of geological specimens, will show you, that the rocks which form the crust of our globe, have been divided into two great classes: *Primitive* and *Secondary*. Each of these has numerous characteristics, and a variety of imbedded minerals, peculiar to itself. The Western country, from the Allegheny mountains to the arid and uninhabitable savannas beyond the Missouri, is composed, exclusively, of secondary *formations*, and we can, therefore, expect them to yield only those useful and curious minerals which belong to that class of rocks. But although limited to these, our mineral re-

* See "An Introductory Lecture on the Utility and Pleasures of the Study of Mineralogy and Geology, delivered in the Western Museum, December 18, 1819," published in the gazettes of this city, and obligingly republished (though under a different title and with some alterations by the Editor) in the first number of the quarterly series of the Port Folio.

The Author candidly confesses, that his chief object in noticing this production, is to apprise the readers of that respectable magazine, that the paper referred to was not an essay, but an introductory lecture before a mixed audience; which he hopes will account for the rhetorical and declamatory style in which it is written.

sources, when fully disclosed, will be found sufficiently numerous to compose an important element of public prosperity. For a knowledge of what have been already discovered, I must refer to the shelves of our cabinet; and be content with a few practical remarks.

Limestone, so important to agriculture, architecture and the arts, is the predominant rock of the Western country; and constitutes a more substantial and permanent source of national wealth, than the boasted mines of Mexico and Peru. A soil spread over limestone rocks can never be exhausted of its fertility; and the people who industriously cultivate it, must be rich, powerful and happy. In different parts of our country this great formation presents several interesting varieties, and contains beds and strata of other useful minerals. In the valleys of the Great Miami and Kentucky rivers, it affords quarries of excellent secondary marble. In the northeastern portions of this state, it exhibits many indications of the existence of gypsum. In Kentucky and Indiana it is cavernous, and the walls and floors of its caves afford vast quantities of nitre and epsom salt. In the district where the Missouri, Mississippi and Ohio unite their waters, it is metalliferous, yielding inexhaustible supplies of lead ore, in connexion with sulphate of barytes and beautiful crystals of fluor spar.

Our sandstone formation is extensive, and furnishes numerous quarries, whence building materials are conveyed to the towns and villages along our rivers. The strata of coal which it contains are of such extent, as to present an exhaustless supply of that

important species of fuel, whenever the state of the country shall require them to be worked. Either this or the limestone formation, affords at least two valuable localities of buhrstone, sufficient, it is supposed, to supply the entire demand for that article, so important to an agricultural people. In both these formations, there are many salt springs, so strongly impregnated as to induce the belief, that rock salt exists abundantly at no very great depth.

Our districts of slate are numerous; and from what has been discovered, there is no doubt that they contain beds of pyrites and aluminous shale, fit for the preparation of sulphur, sulphuric acid, alum and copperas.

The alluvial formations of the Western country, and especially of the states north of the Ohio, are extensive, and will doubtless yield their peculiar minerals in abundance. Those which are called wet prairies, will probably afford peat and marl; the former of which may be regarded as indispensable to the growth of a dense population on tracts so destitute of wood. Beds of potter's clay are every where met with in our alluvial grounds, and red and yellow ochres will doubtless be discovered. But the most important mineral supplied by these formations is iron, great quantities of which, in the state of argillaceous oxide, unquestionably exist, and will be drawn from them by future industry.

Among the useful minerals which we may expect to find, are mercury, zinc, antimony, and silver; the last of which, in the state of sulphuret, seems indeed to have been already discovered.

Our Geology has only been studied enough, to convince us, that it presents many interesting problems. The great formations of limestone, sandstone, and slate, have been examined but superficially. To determine their boundaries, comparative ages, and relative positions; and enumerate fully and faithfully their imbedded minerals, will require the united labors of many enlightened geologists. The organic remains which they enclose—so numerous, so diversified, so curious in their forms and so mysterious in their natural history, present subjects of inquiry and contemplation, equally difficult and wonderful. Let us traverse the level summits of our highest ridges, clamber up their steeps, descend through the ravines which separate them, or wander in our valleys, these petrified habitations of the ancient tenants of the ocean, are offered to our admiration at every step. The collection which our Society has already made, exhibits a great variety; and placed in connexion with the cabinet of recent shells and corals, presents us with the impressive fact, that the existing seas are inhabited by animals specifically distinct from those which tenanted the ocean that once rolled its waves over the spot where we are now assembled.

The very surface of this region exhibits several remarkable phenomena. Our extensive alluvial grounds contain the water-worn wreck of a multitude of rocks, many of which are not found in this country. On the tops of our highest hills, moreover, we find large detached masses of primitive rock, which have no geological affinities with the secondary strata that rest undisturbed and unbroken below. That

polished wreck of other strata, and those primitive masses, were brought hither from the north by water and ice. To ascertain the extent to which they have been carried, and the spots from which they were detached; to determine the causes, assign the era, and note the impresses of the mighty currents by which they were transported,—are labors that remain to be perfected.* To engage in these investigations, it is not necessary to travel from our own doors. The valleys which we inhabit, were the beds of those ancient and overwhelming rivers. The Illinois, the Wabash, the Miamies, the Scioto and Muskingum—even the little stream, that lags among the maples and sycamores which skirt the western border of our city—were once more copious and majestic, than the Ohio in all its modern grandeur. Wandering feebly through expanded valleys, where accumulated waters once swept along, they call to mind a caravan of Arabs encamped within the spacious ruins of Thebes or Palmyra, and display changes in the natural, analagous to those which occur in the moral world.

In our Museum there is a collection of the utensils, weapons and trinkets of our Indian tribes. Some of these were obtained from themselves: others were

* In the month of October, 1817, the Author of this discourse addressed to his excellency Joseph Correa de Serra, a letter containing facts and speculations relative to this subject, which was read before the American Philosophical Society, and ordered to be published. The vertical chart of the valley of the Ohio river, which was necessary to its illustration, was not, however, transmitted in due time to be engraved for the volume of Transactions that soon after appeared, and the publication was of necessity postponed.

found in the vicinity of their deserted villages, or disinterred from the rude stone or earthen *tumuli*, which we occasionally find overgrown with weeds in the obscurity of our thick woods. I hope to see this department of our cabinet extended much further. I trust that we are not disposed to forget that the curiosities which it contains, are the memorials of a people, who were lately the highminded proprietors and sovereigns of the country which we now inhabit: that the valleys of the Scioto, the Miami and Ohio were for ages overspread with their encampments: that our hills were once vocal with their songs and orisons, re-echoed their fiery and figurative war-speeches, and resounded the tumult of their dance and chase: that these hills and valleys were the land of their fathers, and those scenes their hereditary devotions, pastimes and pursuits:—but that a succession of wars and treaties have dispossessed them of their domain, and driven them, with the elk and bison, to remoter solitudes in the Northwest. Until we are prepared to deny, or can cease to remember, these simple and affecting truths, we must commend the curiosity that would seek to preserve from oblivion some memento of a people that seem to be doomed to inevitable extinction.

With a reference not only to the preservation, but to the acquisition of curiosities from among that people, I cannot forego the pleasure of adverting to the Union Osage Mission, which has recently passed through our city. The wooden foundations of Fort Washington, erected to protect the inhabitants of this place against incensed and hostile Indians, are not yet

decayed, and this Mission is destined to a permanent residence among tribes equally untamed, one thousand miles further west! The enlightened philanthropists that compose it, from that remote station, will shed upon civilized society all the rays of knowledge which they can collect; and we have received a promise that a few at least shall fall upon our institution. Independently of the obligation imposed by this pledge, I shall be excused by every friend of mankind, for offering an incidental tribute of respect to the holy and intrepid benevolence, which could detach for ever from the joys and comforts of home, so many intelligent and happy persons, and immure them in the depths of the wilderness, for the sole purpose of dispensing the blessings of civilization and christianity among its benighted inhabitants.

Our country exhibits older and nobler monuments than the recent vestiges of our Indian tribes. The number, extent and regularity of our mounds, and the implements of stone and copper which they contain, afford incontestible proofs that a people more numerous, enlightened and social, than the wandering hordes found on the discovery of this continent, had previously been its inhabitants. These monuments are our only antiquities; and although they may not, like the classical ruins of Asia and Europe, awaken inspiration, nor infuse melancholy, they will not, I hope, be thought altogether unworthy of our admiration. At what time were they erected, and deserted; have the people who formed them become extinct; did they emigrate to Mexico; or slowly degenerate

into the existing hordes ; and what were the causes of any of these events, are problems which can be solved only by researches into the relics which they have left. These should be vigilantly sought after and carefully preserved, that they may be compared with each other, and with the works of art which belong to the existing tribes. We should thus snatch from the grave a memorial of the former condition of our country, and gain at least a few materials for the portrait of a people, whose very name is blotted from the tablet of humanity.

To exhibit the connexion that often exists between things apparently remote from each other, as well as to demonstrate, that our Museum may be made an efficient means of inquiry into the aboriginal history of this country, I will here state one or two facts.

There are on the shelves appropriated to our Indian implements and ancient remains, several fragments of earthenware. The greater number of these were found in Kentucky and Ohio, about the deserted encampments of the present tribes: one piece was dug out from the center of the large mound, which imparts so much interest to the scenery of the western suburb of our city, and another, manufactured under the view of the person who presented it, was brought, a few years since, from the hordes which inhabit the banks of Red River, in Louisiana. These different specimens have one remarkable character in common. A part of their composition is pounded river shells, an ingredient, which, not being like clay indispensable, seems strongly to imply a common origin of the art among the former and the latter inhabitants of this region; or a

transmission of it from one to the other, and consequently a derivation of the existing tribes from the people whose monuments overspread our country.

The other fact serves, perhaps, to illustrate some of the migrations, if not the origin, of the same people.

In the Museum there are three large marine shells, which were taken from an elliptical mound near the center of the city. They had been deposited with many other utensils and trinkets around the bodies that were buried in that *tumulus*. The lip and internal parts of these shells had been removed, so as to convert them into vessels. The most interesting question which could be proposed concerning them,—from whence were they brought? we are already able, in part, to answer. The two larger are of the same species, and belong to a genus denominated *Buccinum*, by the naturalists. Among the shells hitherto obtained by us from the Atlantic states, there is not one of the same species with these; but the *desideratum* has been supplied by a gentleman from the West Indies, who has deposited in the Museum a shell, which is manifestly of the same kind. We are therefore at liberty to suppose, that those in question were brought from the Florida coast, or perhaps from the shores of Cuba.

The other shell found here, belongs to the genus *Murex*. It is strongly characterized by having its spire reversed, or turned from right to left; a conformation which belongs to no other in our collection. In the opinion of a late ingenious writer,* it is the same kind of shell, that is employed by the Hindus in certain religious rites; and from this and other

* The amiable and lamented Mr. J. D. Clifford, of Lexington, Ky.

facts, he has inferred, that the former inhabitants of this country were of Hindu origin. There is a reversed murex, however, in the northern European seas; and until it is ascertained that they, or some of our own waters have not supplied this, as well as the buccina which were found with it, such a bold speculation will not be received without hesitation.

I have already announced, that the promotion of the useful and ornamental arts, is among the objects of our Society. Drawings, models, and products of the former, whether mechanical or chemical, will find a conspicuous place; and every exertion will be made to acquire good specimens of the latter. Having been transplanted from countries where the fine arts were flourishing in vigor and beauty, our people in general are not without a relish for them. Those, indeed, who have once gazed with admiration on the sublime historical combinations of a West, or the faithful portraits of individual greatness by a Stewart, can never lose the taste for that enjoyment. Should any person object to the gratification of this taste, as a luxury that ought to be prohibited in a young republic, I would reply, that the cultivation of the fine arts should be regarded merely as a concomitant, and not as the cause, or the consequence, of a luxurious state of society; and that a love for the chaste and elegant labors of the painter, the architect and the sculptor, should not be ranked with a relish for the pleasures of the table, an admiration for personal ornaments, and a passion for public shows, and dissolute amusements. The former originates in sentiment, and its gratification imparts dignity and elevation; the latter

are rooted in sensuality, vanity and vice, and their indulgence leads to ruin and disgrace. One springs from

“Faculties that walk the range of heaven,”

The others from

“Appetites that grovel on the earth.”

It may be said, however, that we are too poor to encourage the fine arts. I will admit that but few of our citizens have sufficient wealth to become their individual patrons; but this very circumstance constitutes a strong argument for confiding to a collective body, the means and the duty of promoting their introduction into this country. This object has been assigned to our Society, and I hope to see it executed in a manner that will both delight and refine the public taste.

Among the variety of objects which it is designed to embrace in the Museum, are several kinds of philosophical instruments, calculated to illustrate the principles of magnetism, electricity, galvanism, mechanics, hydrostatics, optics, and the mechanism of the solar system. The whole of these can be fabricated by our ingenious *Curator*, Mr. BEST; and the acquisition of them will not only facilitate the progress of the solitary student, but enable the Society to institute public lectures on the different branches of natural philosophy, as well as of zoology, mineralogy, geology, American antiquities, and the fine arts. Popular courses on these subjects, delivered from time to time, as the means of illustration become adequate, and competent lecturers can be engaged, would accord with the spirit that suggested the esta-

ishment of the Museum, and could not fail to multiply the benefits which it is expected to confer.

In connexion with this subject, it is my duty to call your attention to the Library of the Society. I do this, not to give a catalogue of our little collection, but to express an earnest hope, that in the various branches of science, it will be speedily augmented. One of the most painful deprivations experienced by the student of nature in these new and remote settlements, is the want of books to direct his researches. To employ arguments in support of this assertion, would be almost as superfluous, as an attempt to prove, that but for the invention of letters and the art of printing, we should, at this moment, be as debased as the untutored savages which prowl around the shores of lake Superior. Tradition is their only record; and in its archives no aggregation of the experience and observations of ages can take place. Their generations are insulated from each other; and, like the grasses of the prairies on which they roam, one passes away after another, leaving neither vestige nor monument behind. They have no ascending progression on the scale of excellence; but move for ever in a labyrinth, on the same degraded level. We have the happiness to be placed on a nobler eminence, but can never hope to rise from it, if we neglect the aid of books. Without their assistance, indeed, we can neither comprehend nor enjoy the wider and brighter prospects, which our superior elevation affords; but must resemble navigators becalmed in sight of new lands, abounding in all that could reward them for the perils and privations of the voyage; or guests bidden to a

feast, and when seated, prohibited from tasting the luxuries which tantalize their longing appetites. We may be encompassed by a thousand interesting objects—our feet may press the rarest productions of the mineral world, and on every side the most beautiful forms of living nature may smile upon us and invite our scrutiny;—but the whole will be unavailing. It is not given to us, to penetrate by a single glance, the veil which the Creator has thrown over the relations, that bind into one beautiful and admirable system, the myriad of parts which compose the mighty fabric of this globe. Thousands of years have elapsed since the students of Nature began to unfold her mysteries. Books are the great repository of their discoveries, and he who neglects them, begins, like the first observer, unaided and alone. He may be compared to the astronomer, who, rejecting the records of the science, and even refusing to employ the telescope, might continue at the base of the observatory, and contemplate the heavens with his unassisted vision. Surrounded, then, as we are by a multitude of curious and important productions, we cannot, I think, refrain from introducing and consulting the oracles which might aid us in assigning their names, and acquiring a knowledge of their history and qualities.

These reflections naturally suggest the propriety of adverting to the introduction of the Museum into the College edifice, where we are now assembled. This connexion will, in all probability, be made permanent, and may be regarded as auspicious for both institutions. In some degree they are necessary to the success of one another, and the interests of both would,

therefore suffer by a separation. They afford, in succession, all the aids that are essential to a liberal education. The College is principally a school of literature, the Museum of science, and the arts. The knowledge imparted by one is elementary, by the other practical. Without the former, our sons would be illiterate; without the latter, they would be scholars merely—by the help of both, they may become scholars and philosophers.

Dismissing the consideration of particular topics, I shall pass to a few general remarks. From the preceding review, it appears to be among the leading objects of the Western Museum Society, to collect and preserve the natural and artificial curiosities of the United States, and especially of that portion which we inhabit. If any enlargement of mind can result from the examination of them when exhibited in the Museum, the same effect would be produced, in a much higher degree, by inspecting and contemplating them in their natural situations. I cannot, therefore, but regret, that we do not attach more importance to journeys of observation through our own country. Travels of this kind were eloquently recommended, almost a century ago, by the celebrated Linnæus, and ought to make a part of the education of every young man. After having completed his scholastic, academic or collegiate course, and acquired the rudiments of his trade or profession, he could do nothing so well calculated to enrich his mind with useful knowledge, and qualify him for the practical duties of future life, as to travel through his native land. The objections that preclude the greater number of our young men

from foreign travelling, cannot lie against domestic, which I do not hesitate to say would be equally serviceable. It is quite deplorable to observe, in what utter ignorance of the condition of their native country, they usually engage in the career of business that is allotted to them. Whether destined to be farmers, mechanics, or merchants; physicians or divines; soldiers, lawyers, or even politicians or statesmen; they, in general, enter upon their respective pursuits with equal ignorance of the geography, natural history, and statistics of their theatre of action; and of the character and genius of the people with whom all their future relations are to be formed. A few of our sons are sent to Europe; but this, even supposing them to derive some improvement from such a journey, does not make them acquainted with their own country, and cannot, therefore, supersede the necessity of exploring it. Such as rely on foreign journeys only, resemble scholars who spend their lives in the study of Greek and Roman literature, and die quite ignorant of their own. Accomplishing much which cannot be condemned, though but little that we can approve, they are to be admired rather than imitated. I would not, however, discourage foreign travelling, but it should be preceded by domestic. Until we are acquainted with the state of our own country, we must be wretchedly prepared to appreciate that of others. I may venture to add, that when we shall have acquired a full knowledge of our own land and nation, it will not often be necessary to an able performance of our civic duties, that we should visit any other. To indicate the multitude of curious objects, and depict

the endless variety of sublime and beautiful scenery, which our beloved country presents to the inquisitive traveller at every step, philosophy should guide the pencil, and poetry infuse its inspirations. I shall not venture on the elevated theme, but hasten to conclude with some desultory observations on the influence of literature and science upon the complete establishment and future security of our national independence.

Not having commenced our career in barbarism, we are without the characteristics of an aboriginal nation. Our annals are recorded and uninterrupted. We were detached from civilized portions of the old world, and brought with us the habits of thought and action, the tastes, propensities and passions, which belong to a refined society. Although a young nation, our people are at maturity in much of what belongs to ancient communities. The edifice is new, but the materials of which it is constructed, were previously fashioned and employed elsewhere. We have, therefore, the wants and the desires of a highly civilized condition, while for our acknowledged deficiency in the means of gratifying them, we cannot offer as an apology, that we are a new people. With as little propriety can it be urged, that we suffered a premature alienation from the mother country; for the very acts of wisdom and heroism which disjoined us from the parent stock, were indubitable evidence of our being prepared for the separation. These, however, were the exploits of our fathers, and I fear that too much reliance has been placed upon them. Have we not admired the greatness of their achievements, when we should have been laboring to perpetuate the bless-

ings of which they are the source? Have not our eyes been dazzled by the splendor of their virtues, until we have sometimes been rendered insensible to what we must perform to make us worthy of such distinguished ancestors? Have we not too frequently beguiled ourselves with the idea, that the formation and adoption of our federal constitution, was the full establishment of our independence? Like children, who subsist upon their patrimony, have we not drawn with prodigality upon a heritage of fame and glory, which it was our duty to augment?

It would be incorrect to deny, that many things have been undertaken:—it would be untrue to affirm, that much has been accomplished. A variety of establishments and institutions have been organized; but their number and the labor bestowed upon them are inadequate to the objects to be attained. A simple enumeration of our remaining dependencies on Europe, would make a long and frightful catalogue; and to lessen their number should be the unceasing and anxious aim of every member of the republic. I do not mean to say, that we should have no foreign dependencies; but we certainly should have none that are not compensated by equivalent dependencies upon us. Such an equality with other nations, would be at once the sign and source of our permanent prosperity; and until that enviable condition is established, in vain will our political systems stand forth a proud monument of the wisdom of their authors; or our teeming earth send up its herbs, and fruits, and flowers, and our green fields display their richness and beauty—we shall neither be ennobled by the one, nor rendered

comfortable and happy by the other. In the midst of Nature's choicest bounties, in the fulness of religious and political freedom, we shall remain the unhappy and ignoble dependents of the old world. To us, especially, who inhabit an interior region, and have our dwelling places among the sources of a mighty river; who cannot hold intercourse with foreign countries without an inland voyage of more than a thousand miles, or a difficult overland journey across rugged and lofty mountains, a dependence on Europe is equally disastrous and degrading. I trust that these opinions will, ere long, spread more widely through society, and inspire us to new and nobler efforts in the sacred cause of national independence. I will indulge the hope, that we shall, at no distant time, more fully perceive and acknowledge the momentous truths, that in a nation organized like ours, private and public prosperity are inseparable: That knowledge is the common basis of both: That efforts to promote it can neither exhaust nor impoverish: That expenditures for its cultivation, would not dry up our resources; but, like the exhalations which the earth sends forth, to fall, after a time, in fertilizing showers, would return upon us a rich and replenishing harvest: That periods of general pecuniary embarrassment should not be suffered to diminish these appropriations, as that would inevitably augment the evil: That the greater number of disasters, both public and private, originate in ignorance, and should not be allowed to perpetuate themselves by fortifying its empire: That under all the vicissitudes and trials of life, after a sincere invocation to Divine Providence, the safest

reliance is on the dictates of learning and science; and that in the midst of the widest desolation, our exertions for their benefit should never relax.

An ample illustration of many of these propositions may be found in the difficulties produced during the revolutionary war by our ignorance of the arts and sciences. It is unnecessary that I should do more than advert to the sufferings which our patriot soldiers experienced in the field from a deficiency of clothing, and in our hospitals from a want of medicines and hospital stores; to our defects in the science of engineering; and above all, to the inadequate supply of arms and ammunition, which of itself in the early stages of the war, seemed to threaten the cause of liberty with inevitable ruin. The young colonist saw his native land invaded, its soil crimsoned with the blood of his brethren, and the products of their united and peaceful labors consigned to the flames, or triumphantly borne away as plunder: His soul was fired with a noble resentment, but his weaponless hand hung palsied by his side: His agitations resembled those of the young eagle, when it sees its native haunts molested and defiled, without the power of punishing the aggressor: He was restrained, like those ancients, who, according to the fables of the poet, were metamorphosed into trees, retaining all their desires and aversions, but without the power of gratifying either: Like the kindling volcano, ere it has formed an outlet for its boiling lava, his breast heaved with the impulses of revenge; but the energies which might have redressed the wrongs of an injured country, were left to rend the bosom in which they had been nobly awakened.

If our beloved country were *now* to be invaded by a foreign enemy, not one of these agonies would be felt. And whence, let me ask, would be the exemption? I will reply, that since the perilous days of the revolution, Apollo and Vulcan have united in tempering the shield of Mars, and replenishing his quiver with arrows. The Genius of Science has shed his creative influence over our artisans and philosophers: by his beams they have explored the recesses of our primitive forests; pursued the meanders of our vast rivers; surveyed our spacious bays and harbors, and descended into our prolific earth. The fruits of this enterprise have been rich and abundant. Academies and Societies for military instruction have been formed; laboratories and manufactories have been erected; our magazines have been filled, and our weak places made strong. Thus, if not equal to Europe in the application of science to works of national defence, we have obviously passed the weakness of childhood; and might repel, almost without bloodshed, an invasion, to which our fathers could only oppose their dauntless and patriotic bosoms.

To specify all the connexions between the cultivation of science, and the increase and perpetuity of our happiness, would require more time and higher powers than have been appropriated to this occasion: for to what shall we ascribe the more admirable principles of our federal constitution, when compared with all others, but the profounder acquaintance of our statesmen with the science of government? To what shall we attribute the greater respectability and dignity of character which belong to the middle and lower ranks

of our people, but the more general diffusion of information consequent upon our excellent political systems? To what shall we refer the extinction of many of the absurd prejudices and odious superstitions which, not half a century since, defaced our national physiognomy, but the influence of juster views of Nature and her laws? To what can we ascribe our better progress in the mechanical and chemical arts, but a closer study of the principles of natural science? To what shall we attribute the decreasing necessity and practice of sending our sons abroad for an education; but the improving state of our own institutions, the augmentation of their libraries, cabinets and philosophical apparatus, and the employment of more learned professors? To what, in short, shall we ascribe the decided amelioration of our national character, and its regular though tardy approaches towards refinement and elegance, but the cultivation of letters and science?

If we perceive, then, in the increase of useful knowledge the true secret of our permanent happiness; if literature can supply the talismanic agent of our prosperity and power, and philosophy, like ‘a pillar of fire by night,’ direct our wandering footsteps to the temple of glory, let us not ignobly stay our hands from the labors by which, only, philosophy and letters can be made to flourish. Let the architects of our national greatness conform to the dictates of science; and the monuments they construct will rise beautiful as our hills, imperishable as our mountains, and lofty as their summits, which tower sublimely above the clouds.

APPENDIX.

THE Managers of the Western Museum Society avail themselves of the opportunity afforded by the distribution of the preceding Discourse, to propose **EXCHANGES** with other Societies, and with individual collectors at a distance.

The principal articles, which they can send abroad with convenience, are—geological specimens of the secondary rocks of the basin of the Ohio, with their organic remains, and accompanying minerals; preserved specimens of the mammalia, birds, fishes, amphibia, crustacea, mollusca, insects and worms of the same region; grinders of the mastodon and arctic elephant; Indian implements, and aboriginal relics taken from mounds and tumuli.

In exchange for any of these, they will be glad to receive from the Eastern states and from Europe, foreign zoological, geological and mineralogical specimens of every kind; also manufactures and trinkets from the islands of the Pacific Ocean; coins and medals; paintings, casts from statues, and fragments of sculpture, of such excellence as to serve for models;—and finally, Books, in the various departments of physical science, whether written in the English, French or German languages.

As an Herbarium is contemplated among the future acquisitions of the Society, and as the Managers are desirous of promoting the introduction and cultivation of exotic plants, they will be pleased to receive any valuable seeds and roots of other countries, and will, in return, transmit such of our indigenous vegetable productions as may be requested.

Foreign packages, intended for them, may be consigned to Professor SILLIMAN, Yale College; to Professor MITCHILL, New York; to Mr. JOHN VAUGHAN, Philadelphia; Mr. HORACE H. HAYDEN, Baltimore; or to Messrs. NOBLE AND MILLEN, New Orleans, who will reimburse the expenses which have been incurred.

From the authors of books on the various topics embraced in the plan of the Museum, whether published in the United States or in Europe, the Managers would be very happy to receive copies for the library of the Institution. By transmitting their works to this distant place, a wider dissemination of their fame would be effected, while they would experience the noble satisfaction of being instrumental, in naturalizing the sciences in a new country.

From their fellow citizens of the Backwoods, generally, the Managers would earnestly ask such curiosities, both natural and artificial,—whether as donations or otherwise would, of course, be left to themselves—as may fall into their hands. With this assistance, the labors and expenditures of the Society would be rendered far more efficient and productive than they otherwise could be; and the important but difficult design of making the Institution an extensive and useful School of Nature and Art, would be much sooner accomplished.

ELIJAH SLACK,	} MANAGERS.
WILLIAM STEELE,	
JESSE EMBREE,	
PEYTON S. SYMMES,	
DANIEL DRAKE,	

Cincinnati, Ohio, June, 1820.

Accession no.

HC

Author

Drake, D.

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